

SEVERE LOCAL STORMS

[Compiled by MARY O. SOUDER from reports submitted by Weather Bureau officials]

[The table herewith contains such data as has been received concerning severe local storms that occurred during the month. A revised list of tornadoes will appear in the United States Meteorological Yearbook]

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Washington, western portion of the State.	7				\$6,000,000	Wind	Vibration from wind caused the destruction of the central span of the Narrows Bridge at Tacoma. The maximum wind velocity was recorded at 31 miles per hour.
South Dakota, eastern section.	9-12			2		Blizzard	High northwest winds, over 40 miles an hour, accompanied by drifting snows of blizzard proportion and zero visibility at times. Subzero temperatures snapped ice-coated communication lines, blocked highways, stalled railroad trains, caused cancelation of Armistice Day programs, closed schools, and marooned travelers. Stock, turkeys, chickens, and pheasants were frozen to death where shelter was lacking. 2 deaths due to severe weather.
Nebraska, south-central and southeastern portions.	10-11		100-200		200,000	Widespread ice-storm with freezing rain.	This storm was preceded by freezing rain over the south-central and south-eastern portions. Estimated loss to turkeys and other livestock was \$200,000. Many fruit and shade trees injured by the severe freeze, which came while most of the leaves were still green. Many roads and highways closed especially in the northeastern portion of the State, but were soon open to traffic again.
Minnesota	10-12			49	1,500,000	Glaze, sleet, snow, wind, and cold wave.	The storm began with drizzling rain during the afternoon of the 10th and changed to glaze and sleet on the morning of the 11th when the temperature dropped to the freezing point. Several hours later precipitation was entirely in the form of snow which continued through the remainder of the 11th and throughout most of the 12th with strong northerly to westerly winds that drifted the snow badly. The cold wave that followed in the wake of the storm caused much suffering and was very destructive. Hundreds of automobiles were abandoned in deep snow drifts, transportation facilities were at a standstill, and many persons unable to reach their homes. Train, bus, airplane, and street car service interrupted from the afternoon of the 11th to the afternoon of the 14th, and some services were not fully restored until the 16th. There were many miles of snow-drifts. In the Willmar area, drifts as high as 20 feet were reported. Highway traffic was blocked generally throughout the area affected. This condition improved very slowly. Some side roads were not open to traffic until near the close of November. Most seriously affected by the storm were the turkey farms, overhead wire systems, and the State highway department. Turkey losses were estimated at \$500,000. Thousands of game birds as well as much livestock and poultry perished. The total loss from the storm and cold wave is estimated at over \$1,500,000, but the economic loss from delayed traffic of all kinds, loss of wages and loss to business was much greater. Schools were closed for several days. Numerous accidents resulted from poor visibility. Many of the 49 persons who lost their lives were duck hunters, who, like others, were caught unprepared by the sudden storm and cold wave. Undoubtedly this storm will go down into meteorological history as the most severe ever experienced during November in the State.
Huntsville, Tex.	11	1:10 a. m.	440		50,000	Straight-line wind.	Damage to buildings, household goods, trees and livestock; public utility service disrupted.
Leota to Hollandale, Miss., and vicinities.	11	About 2 a. m.	50	0	200,000	Tornado	Property damaged; 7 persons injured.
Crocket Mills and Dresden, Tenn.	11	4:15-5 a. m.		0	180,000	do	Property damaged; several persons slightly injured.
Illinois, entire State	11			13	2,000,000	Wind	Widespread property damage with \$1,500,000, at Chicago alone. From 75 to 100 persons injured. The highest wind velocity, 46 miles per hour, at Springfield, was the highest ever recorded for November at that place.
Indiana, entire State	11			1	200,000	do	This storm recorded as one of the most general and severe wind storms on record. Buildings, trees, poles, and wires damaged. 27 persons injured.
Davenport, Iowa, 1 mile west	11			0	3,000	Tornado	Storm moved northeastward and caused property damage along a 7-miles path.
Iowa, western and northern portions.	11				500,000	Blizzard	The heaviest snowfall, amounting to 17 inches, was recorded at Pringhar. High winds blew steadily in excess of 30 miles an hour for considerable period of time with some gusts exceeding 50 miles an hour, causing snow to drift badly interfering with rail and highway traffic. There was considerable damage to power and communication lines. Many highways blocked with considerable loss to motorists generally as well as to commercial truck operators. Thousands of private automobiles had frozen radiators. There were several automobile accidents caused by the storm and numerous cars were stalled in drifts. Buses ran behind schedule. Rail travel delayed, some trains canceled.
Michigan	11-12			73		Wind	With the exception of the storm of November 9-10, 1913, this was the most disastrous and widespread wind storm in the history of Michigan or Lake Michigan. The larger ships with loss of life are the Novadoc with a loss of 2 lives; the Minch, loss of 24 lives; the Davock, a 7,200 ton freighter, loss of 33 lives. The Novadoc, grounded near Pentwater and the remaining crew of 17 was safely removed by the fishing tug Three Brothers under command of Mr. Clyde Cross. The rescue was pointed out as an unusually heroic effort on the part of Mr. Cross and his assistants. Other heroic rescues were made by both fishermen and Coast Guard. Inland property damage including buildings, communication and power lines, trees and signboards. Automobiles had to slow down in order to keep from being blown from highways. Deer hunters headed from the Upper Peninsula were stranded at the Straits until the storm subsided. The wind of such terrific force from the southwest that it blew sufficient water out of the Saginaw River and the Saginaw Bay to cause the lowest reading of record at the official river gage at Saginaw. The depth of the water in the river was reduced by 8 feet during the blow and reports point out that the water line receded as much as a mile in Saginaw Bay. Extreme wind velocities ranged from 36 miles at Sault Ste Marie, Mich., to 80 miles at Grand Rapids and 56 miles at Detroit. Total damage estimated in millions of dollars.
New York, western and central portion of the State.	11-12			1	10,000	do	Wind reached gale force with considerable damage locally mostly to telegraphic and power lines, caused by falling trees and branches. Minor damage to windows and signs. Damage in Buffalo and vicinity estimated at \$10,000. 2 girls seriously injured by falling tree.
Wisconsin, entire State except the far northeast.	11-12			23	300,000	do	Maximum wind velocity of 54 miles per hour from the southwest was recorded 4 separate times in Milwaukee. There was much suffering among duck hunters, many losing their lives through being marooned on islands because of high winds and waves on inland waters and subsequent exposure and freezing as the temperature dropped rapidly. 2 died in Waukesha County and it is estimated that about 20 were lost on the Mississippi River between St. Paul and Prairie du Chien, Wis. A man was killed by a falling wall in Milwaukee. Much damage to utility wires. Considerable damage to overhead lines in the extreme eastern portion of the State. No estimate of damage available.
Union to Curry Counties, N. Mex.	23-24	2 days				Heavy snow and glaze.	Moderate damage to trees, telephone and power lines. Damage in De Witt County alone \$10,000.
Illinois, northern half of State.	26				10,000	Sleet and ice	Loss in mature crops, \$500; for suspension of business, \$500.
Ouachita County, Ark.	27-28				1,000	Heavy rain and flood.	

¹ Miles instead of yards.